

Clean Version of Pending Claims

1. (Amended) A shoot and fruit thinner adapted to selectively prune vines in a vineyard by removing selected vegetative shoots and/or fruit from one or more vines, said shoot and fruit thinner comprising:

β² a draft vehicle associated with a mobile power unit, said draft vehicle adapted to be moved about said vineyard along said vines;

a frame supported by said vehicle, said frame having at least one rotary tool depending therefrom, said tool adapted to selectively thin said shoots and/or said fruit on said vine as said vehicle moves about said vineyard, said tool powered by said power unit;

a means for guiding said tool along said vines such that the tool maintains a constant position and distance relative to said vine; and,

controls associated with said power unit for selectively manipulating said tool to control the amount of thinning of said shoots and/or fruit.

2. The shoot and fruit thinner as recited in claim 1, wherein said tool is supported by an articulating arm secured to said frame.

3. The shoot and fruit thinner as recited in claim 2, wherein said tool comprises a circular disc mounting a plurality of radially spaced apart fingers.

β³ 4. (Amended) The shoot and fruit thinner as recited in claim 1 further comprising a second articulating arm having a circular brush adapted to be rapidly rotated by said power unit between adjacent cordons so as to remove or damage undesirable shoots or fruit.

5. The shoot and fruit thinner as recited in claim 2, wherein said tool comprises an oval chain unit mounting a plurality of regularly spaced apart fingers.

6. The shoot and fruit thinner as recited in claim 1, wherein said frame comprises a platform pivotally secured to said vehicle.

7. The shoot and fruit thinner as recited in claim 2, wherein said articulating arm comprises an upper and lower arm, and wherein said tool is secured to said lower arm.

8. The shoot and fruit thinner as recited in claim 3, wherein said fingers are flexible finger pairs having a first finger adjacent a second finger.

9. The shoot and fruit thinner as recited in claim 8, wherein said first and second fingers of each finger pair are formed from an elastomeric material, rubber, plastic, or the like.

10. The shoot and fruit thinner as recited in claim 5, wherein said fingers are flexible finger pairs having a first finger adjacent a second finger.

11. The shoot and fruit thinner as recited in claim 10, wherein said first and second fingers of each finger pair are formed from an elastomeric material, rubber, plastic, or the like.

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12. (Amended) The shoot and fruit thinner as recited in claim 1 wherein said means for guiding said tool along said vines such that the tool maintains a constant position and distance relative to said vine comprises a guide wheel attached to said frame, said guide wheel adapted to roll along a central wire on a trellis as said vehicle moves forwardly along said vine.

13. The shoot and fruit thinner as recited in claim 12, wherein said tool is supported by an articulating arm secured to said frame.

14. The shoot and fruit thinner as recited in claim 13, wherein said tool comprises a circular disc mounting a plurality of radially spaced apart fingers.

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15. (Amended) The shoot and fruit thinner as recited in claim 13 further comprising a second articulating arm having a circular brush adapted to be rotated by said power unit between adjacent cordons so as to remove or damage undesirable shoots or fruit.

16. The shoot and fruit thinner as recited in claim 11, wherein said tool comprises an oval chain unit mounting a plurality of regularly spaced apart fingers.

17. The shoot and fruit thinner as recited in claim 13, wherein said frame comprises a platform pivotally secured to said vehicle.

18. The shoot and fruit thinner as recited in claim 13, wherein said articulating arm comprises an upper and lower arm, and wherein said tool is secured to said lower arm.

19. The shoot and fruit thinner as recited in claim 14, wherein said fingers are flexible finger pairs having a first finger adjacent a second finger.

20. The shoot and fruit thinner as recited in claim 19, wherein said first and second fingers of each finger pair are formed from an elastomeric material, rubber, plastic, and the like.

21. The shoot and fruit thinner as recited in claim 16, wherein said fingers are flexible finger pairs having a first finger adjacent a second finger.

22. The shoot and fruit thinner as recited in claim 21, wherein said first and second fingers of each finger pair are formed from an elastomeric material, rubber, plastic, and the like.

23. The shoot and fruit thinner as recited in claim 13, wherein said mobile power unit includes a remote hydraulic motor rotating said tool, by driving a first gear in contact with an endless chain, said endless chain driving a second gear associated with said rotating tool, and a shield covering said chain to prevent inadvertent contact with said vine, shoots, and/or fruit.

24. The shoot and fruit thinner as recited in claim 23, wherein said tool comprises a circular disc having a plurality of radial flexible fingers and driven by said hydraulic motor.

25. The shoot and fruit thinner as recited in claim 23, wherein said tool comprises a circular brush driven by said hydraulic motor.

26. The shoot and fruit thinner as recited in claim 23, wherein said tool comprises an oval chain unit having a plurality of flexible fingers and driven by said hydraulic motor.